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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,950	12/13/2006	Masahiro Nakazaki	0020-5466PUS1	9326
2292 7590 04/02/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER KHAN, AMINA S	
			ART UNIT	PAPER NUMBER
			1751	
SHORTENED STATUTORY PERIOD OF RESPONSE		NOTIFICATION DATE	DELIVERY MODE	
3 MONTHS		04/02/2007	ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/02/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No.		Applicant(s)	
	10/568,950		NAKAZAKI ET AL.	
	Examiner		Art Unit	
	Amina Khan		1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/22/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Dickmanns et al. (US 3,993,437).

Dickmanns et al. teach dyeing perlon yarn in compositions comprising sodium sulfide, hydroxybenzene derivatives at temperatures up to 110°C (column 10, example 3).

Accordingly, the teachings of Dickmanns et al. anticipate the material limitations of the instant claims.

3. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Russ et al. (US 5,810,890).

Russ et al. teach dyeing nylon in compositions comprising trisodium phosphate, hydroxybenzene derivative dyes at temperatures up to 98°C (column 26, examples 5 and 6).

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Accordingly, the teachings of Russ et al. anticipate the material limitations of the instant claims.

4. Claims 1,3 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 68024207 B.

JP 68024207 B teaches treating dyed nylons with tannic acid at 80°C and then treating with iron chloride solution at 70°C (abstract).

Accordingly, the teachings of JP 68024207 B anticipate the material limitations of the instant claims.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamatsu et al. (US 5,221,289).

Miyamatsu et al. teach treating wool (column 1, lines 45-60) with tannic acid at a bath temperature of 50-95°C (column 4, lines 1-15) and with iron salt mordants (column 4, lines 50-55) at temperatures of boiling (column 5, lines 1-5). Miyamatsu et al. further teach treating the fabrics with dyes (column 5, lines 5-15).

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Miyamatsu et al. do not teach all the claimed embodiments in a single example.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods of Miyamatsu et al. to incorporate all the instantly claimed embodiments because Miyamatsu et al. clearly teach tanning and mordanting steps as essential in producing dyed articles with both dye affinity and color fastness (column 4, lines 15-20). Miyamatsu et al. further teach the products produced by these methods have deep shades with fast colors (column 6, lines 15-25). One of ordinary skill would have been motivated to select the claimed components from the teaching of Miyamatsu et al. absent unexpected results.

7. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishikawa et al. (US 4,620,852).

Nishikawa et al. teach treating polyamide fibers (column 6, lines 55-65) with tannic acid in combination with metal salts such as iron salts (column 7, lines 15-40) at temperatures of preferably 50-80°C (column 7, lines 40-55). Nishikawa et al. further teach treating the fabrics with dyes (column 7, lines 15-25).

Nishikawa et al. do not teach all the claimed embodiments in a single example.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods of Nishikawa et al. to incorporate all the instantly claimed embodiments because Nishikawa et al. clearly teach

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tanning and mordanting steps as essential in producing dyed articles with both dye affinity and color fastness (column 4, lines 15-20). Nishikawa et al. further teach the products produced by these methods have deep shades with fast colors (column 6, lines 15-25). One of ordinary skill would have been motivated to select the claimed components from the teaching of Nishikawa et al. absent unexpected results.

8. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moeller et al. (WO 98/47472). The WO 98/47472 document is not in English so the English equivalent, US 6,203,579, is being used for citation purposes.

Moeller et al. teach dyeing wool and polyamide fibers (column 3, lines 1-10) with dihydroxybenzoic and trihydroxybenzoic acids (column 6, lines 1-10) in combination with metal salts such as iron salts (column 11, lines 25-40) at temperatures of less than 45°C (column 7, lines 40-55).

Moeller et al. do not teach all the claimed embodiments in a single example.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods of Moeller et al. to incorporate all the instantly claimed embodiments because Moeller et al. clearly teach hydroxybenzoic acid and iron salts as advantageous in producing dyed articles with greater color brilliance and improved fastness properties (column 3, lines 35-55; column 11, lines 25-40). One of ordinary skill would have been motivated to

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select the claimed components from the teaching of Moeller et al. absent unexpected results.

9. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moeller et al. (WO 01/34106). The WO 01-34106 document is not in English so the English equivalent, US 6,790,239, is being used for citation purposes.

Moeller et al. teach dyeing wool and polyamide fibers (column 3, lines 55-65) with dihydroxybenzaldehydes and trihydroxybenzaldehydes (column 4, lines 1-15) in combination with metal salts such as iron salts (column 10, lines 20-35) at temperatures of less than 45°C (column 6, lines 20-30).

Moeller et al. do not teach all the claimed embodiments in a single example.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods of Moeller et al. to incorporate all the instantly claimed embodiments because Moeller et al. clearly teach hydroxybenzaldehydes and iron salts as advantageous in producing dyed articles with excellent brilliance and color depth (abstract). One of ordinary skill would have been motivated to select the claimed components from the teaching of Moeller et al. absent unexpected results.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amina Khan whose telephone number is

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(571) 272-5573. The examiner can normally be reached on Monday through Friday, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AK
Amina Khan, PhD
March 26, 2007

Lorna M. Douyon
LORNA M. DOUYON
PRIMARY EXAMINER